L is a cleavable linkage;

D is a detection group;

M is a mobility modifier consisting of from 1 to 500 atoms selected from the group consisting of carbon, hydrogen, oxygen, sulfur, nitrogen, phosphorus, and boron;

and wherein, upon cleavage of L an eTag reporter is produced with a distinct charge/mass ratio so that eTag reporters from different electrophoretic probes form distinct peaks upon electrophoretic separation.

22. The probe set of claim 21 wherein said plurality is in the range of from 5 to 100, and wherein M is a mobility modifier consisting of from 1 to 300 atoms selected from the group consisting of carbon, hydrogen, oxygen, phosphorus, nitrogen, sulfur, and boron.

23. The probe set of claim 21 wherein said cleavable linkage is photolabile.

24. The probe set of claim 22 wherein said cleavable linkage is cleavable by oxidation and is selected from the group consisting of olefins, thioethers, sulfoxides, and selenium analogs of thioethers or sulfoxides.

25. The probe set of claim 24 wherein said cleavable linkage is cleavable by oxidation by singlet oxygen or hydrogen peroxide.

26. The probe set of claim 25 wherein said detection group is a fluorophore, a chromophore, or an electrochemical label.

27. The probe set of claim 26 wherein said antibody binding compound is a monoclonal antibody or a polyclonal antibody; and wherein k is in the range of from 1 to 3.

28. The probe set of claim 27 wherein said charge/mass ratio is in the range of from -.001 to 0.5, and wherein said detection group is a fluorescein.

29. The probe set of claim 21 wherein said cleavabe linkage comprises an ester linkage that is cleavable by an esterase.

30. A set of reagent pairs for detecting the presence or absence of one or more target compounds, the set comprising a plurality of pairs of first reagents and second reagents, the first reagent and second reagent of each pair being specific for the same target compound, the first reagent of each pair being selected from the group defined by the formula:

$$[(D, M)\text{-}L]_k\text{-}T$$

wherein:

T is an antibody binding compound specific for a target compound,

k is an integer in the range of from 1 to 20,

L is a cleavable linkage,

D is a detection group, and

M is a mobility modifier consisting of from 1 to 500 atoms selected from the group consisting of carbon, hydrogen, oxygen, sulfur, nitrogen, phosphorus, and boron,

wherein upon cleavage of L an eTag reporter is produced with a distinct charge/mass ratio so that eTag reporters of different electrophoretic probes form distinct peaks upon electrophoretic separation; and

the second reagent of each pair comprising a second antibody binding compound having a sensitizer for generating an active species to cleave the cleavable linkage.

31. The set of reagent pairs of claim 30 wherein said plurality is in the range of from 5 to 100, and wherein M is a mobility modifier consisting of from 1 to 300 atoms selected from the group consisting of carbon, hydrogen, oxygen, phosphorus, nitrogen, sulfur, and boron.

32. The set of reagent pairs of claim 31 wherein said cleavable linkage is selected from the group consisting of olefins, thioethers, sulfoxides, and selenium analogs of thioethers or sulfoxides.

33. The set of reagent pairs of claim 32 wherein said detection group is a fluorophore, a chromophore, or an electrochemical label, and wherein said charge/mass ratio is in the range from -.001 to 0.5.